

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A substrate transfer apparatus for a component mounting machine, for transferring a substrate into a mounting process (8) in which components are mounted onto the substrate and transferring the substrate from said mounting process (8), comprising:

a mounting-waiting process (7) for making the substrate to be transferred into the mounting process (8) wait before the mounting process (8); and

a substrate discharge-waiting process (9) for making the substrate after being transferred from the mounting process (8) wait before a following process, wherein

transfer of an unmounted substrate (3) from said mounting-waiting process (7) to the mounting process (8) and transfer of a mounted substrate (2) for which mounting has been done in the mounting process (8) from the mounting process (8) to the substrate discharge-waiting process (9) are performed simultaneously,

characterized in that detecting means (6) are provided for detecting that a plurality of substrates have been transferred into the substrate discharge-waiting process (9) as part of the same transfer.

2. (Currently Amended) The substrate transfer apparatus for a component mounting machine according to claim 1, wherein the detecting

means includes: a substrate-arrival detecting sensor ~~(5e)~~ for detecting the mounted substrate ~~(2)~~ transferred into the substrate discharge-waiting process ~~(9)~~; and a substrate-continuity detecting sensor ~~(6)~~, provided upstream of the substrate-arrival detecting sensor ~~(5e)~~, for detecting an unmounted substrate ~~(3)~~ being transferred at the same time as the mounted substrate ~~(2)~~.

3. (Currently Amended) The substrate transfer apparatus for a component mounting machine according to claim 2, wherein the substrate-continuity detecting sensor ~~(6)~~ is arranged at a position that satisfies $X < X_S < 2X$, where a distance from the substrate-arrival detecting sensor ~~(5e)~~ to the substrate-continuity detecting sensor ~~(6)~~ is X_S and a substrate dimension in the substrate transfer direction is X .

4. (Currently Amended) The substrate transfer apparatus for a component mounting machine according to claim 3, wherein the substrate-continuity detecting sensor ~~(6)~~ is arranged to be movable to the position that satisfies $X < X_S < 2X$.

5. (Currently Amended) The substrate transfer apparatus for a component mounting machine according to claim 3, wherein the substrate-continuity detecting sensor ~~(6)~~ is constructed to be automatically movable to the position that satisfies $X < X_S < 2X$, in accordance with the substrate dimension X in the substrate transfer direction.

6. (Currently Amended) The substrate transfer apparatus for a component mounting machine according to claim 1, wherein the detecting

means includes: a substrate-arrival detecting sensor ~~(5e)~~ for detecting the mounted substrate ~~(2)~~ transferred into the substrate discharge-waiting process ~~(9)~~; and a plurality of substrate-continuity detecting sensors ~~(6a, 6b, 6c)~~, provided upstream of the substrate-arrival detecting sensor ~~(5e)~~ at different positions in a substrate transfer direction from one another, for detecting an unmounted substrate ~~(3)~~ being transferred at the same time as the mounted substrate ~~(2)~~.

7. (Currently Amended) The substrate transfer apparatus for a component mounting machine according to claim 6, wherein the substrate-continuity detecting sensors ~~(6a, 6b, 6c)~~ detect an unmounted substrate ~~(3)~~ by a substrate-detection state of one ~~(6b)~~ of the plurality of substrate-continuity detecting sensors ~~(6a, 6b, 6c)~~ that is located at a position satisfying $X < X_S < 2X$, where a distance from the substrate-arrival detecting sensor ~~(5e)~~ to the one substrate-continuity detecting sensor ~~(6b)~~ is X_S and a substrate dimension in the substrate transfer direction is X .

8. (Currently Amended) The substrate transfer apparatus for a component mounting machine according to claim 6, wherein the substrate transfer apparatus includes a minimum required number of the substrate-continuity detecting sensors ~~(6a, 6b, 6c)~~ by arranging N sensors that satisfy $2^N \times P_{\min} > P_{\max}$ at positions determined by $2^n \times P_{\min} / 2$ ($n = 1, 2, \dots, N$) from a minimum substrate size (P_{\min}) and a maximum substrate size (P_{\max}) in the substrate transfer direction, respectively, for which the electronic component mounting machine ~~(4)~~ is intended.

9. (Currently Amended) The substrate transfer apparatus for a component mounting machine according to claim 7, wherein the substrate transfer apparatus includes a minimum required number of the substrate-continuity detecting sensors ~~(6a, 6b, 6c)~~ by arranging N sensors that satisfy $2^N \times P_{\min} > P_{\max}$ at positions determined by $2^n \times P_{\min} / 2$ ($n = 1, 2, \dots, N$) from a minimum substrate size (P_{\min}) and a maximum substrate size (P_{\max}) in the substrate transfer direction, respectively, for which the electronic component mounting machine ~~(4)~~ is intended.